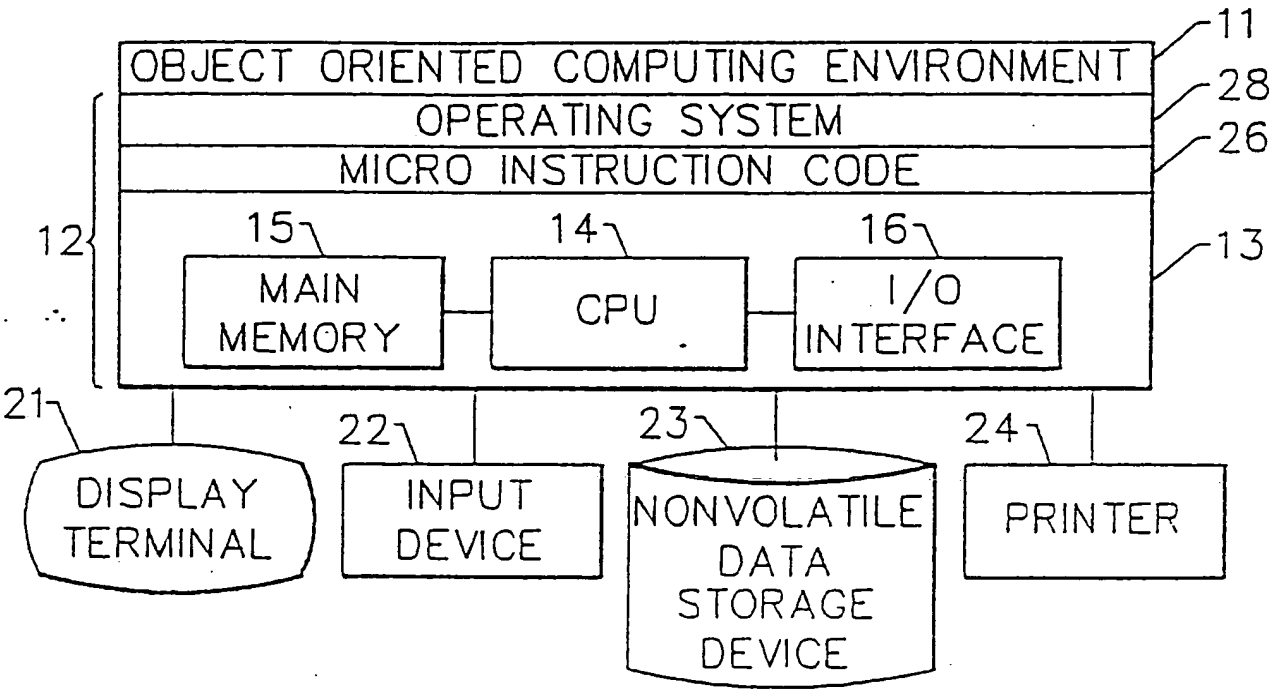
OBJECT ORIENTED COMPUTING ENVIRONMENT
OPERATING SYSTEM
MICRO INSTRUCTION CODE
MAIN MEMORY
CPU
I/O INTERFACE
DISPLAY TERMINAL
INPUT DEVICE
NONVOLATILE DATA STORAGE DEVICE
PRINTER
11
28
26
12
13
15
14
16
21
22
23
24

FIG. 1.

1. Visual support to define a simple object which participates in a complex object

2. Virtual definition of complex object structures

3. Visual support for contextual information

4. Generic support for cascade of complex object actions

5. Visual support for presentation and manipulation of normalized data

6. Visual support for computed fields

7. Visual support for summary fields

FIG. 2

09645976.022400

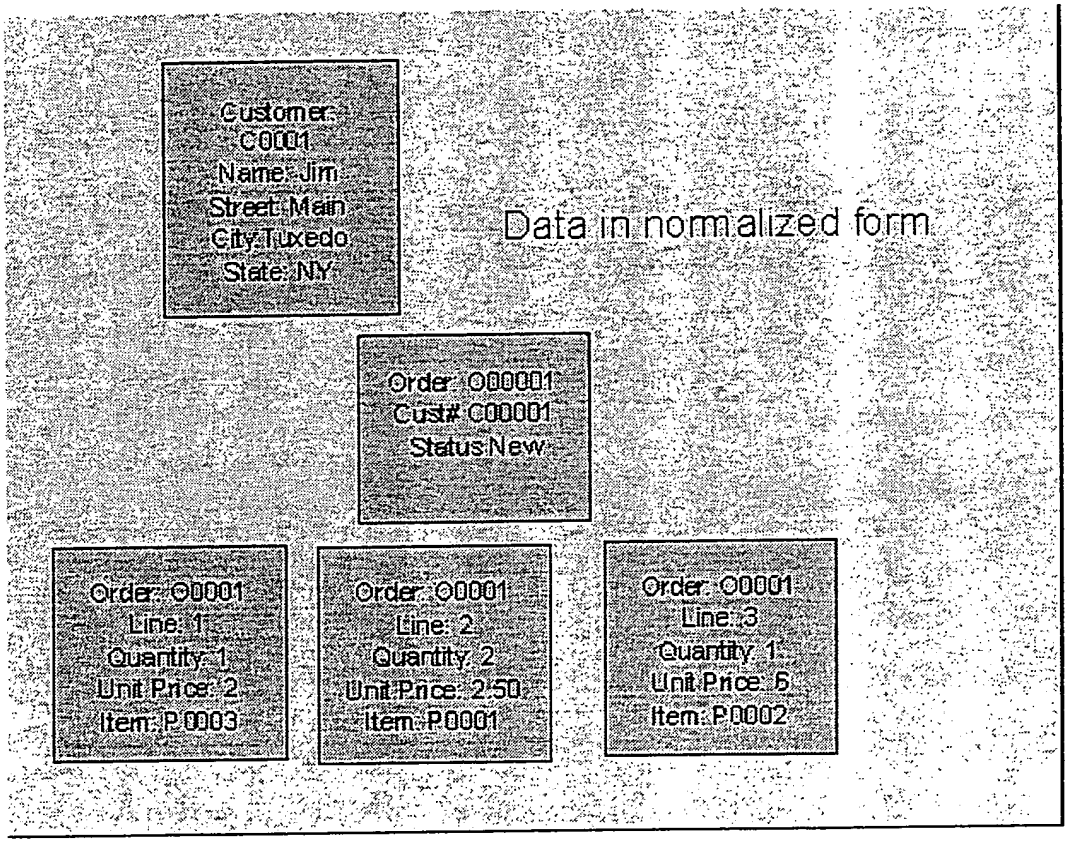
Customer:
C0001
Name: Jim
Street: Main
City: Tuxedo
State: NY
Data in normalized form
Order: O0001
Cust#: C0001
Status: New
Order: O0001
Line: 1
Quantity: 1
Unit Price: 2
Item: P0003
Order: O0001
Line: 2
Quantity: 2
Unit Price: 2.50
Item: P0001
Order: O0001
Line: 3
Quantity: 1
Unit Price: 5
Item: P0002

FIG. 3

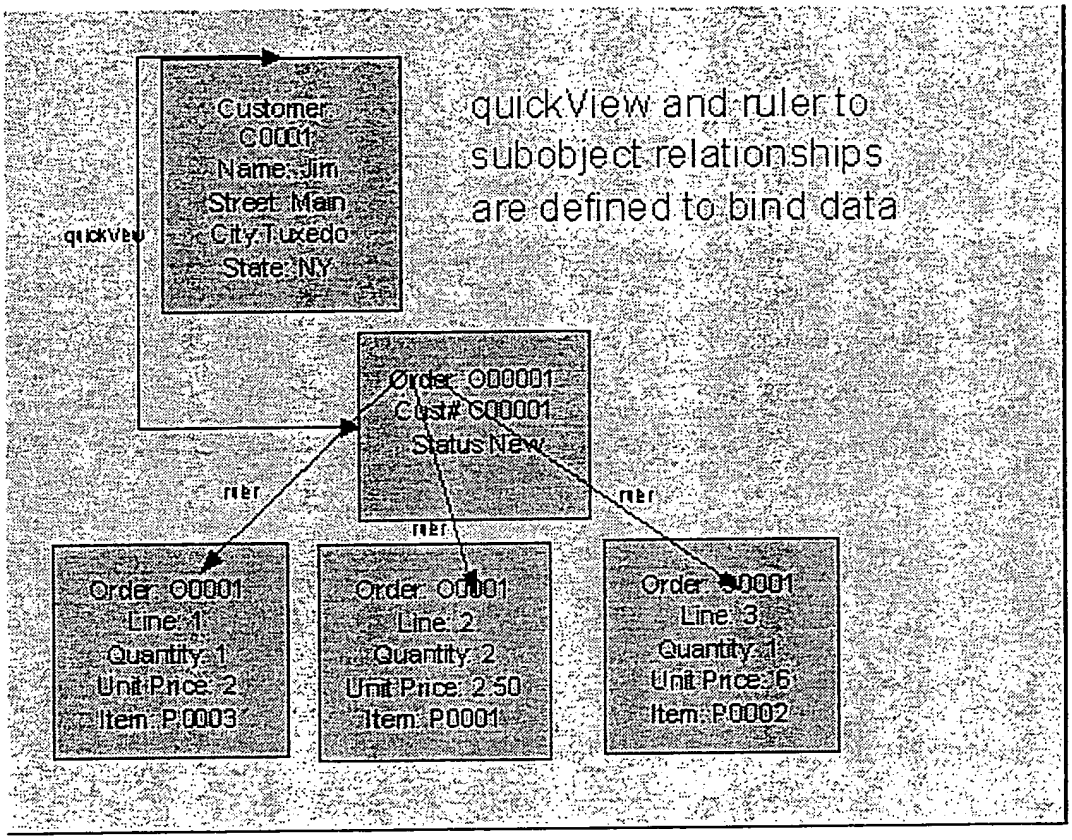

FIG. 4

09645095.070400

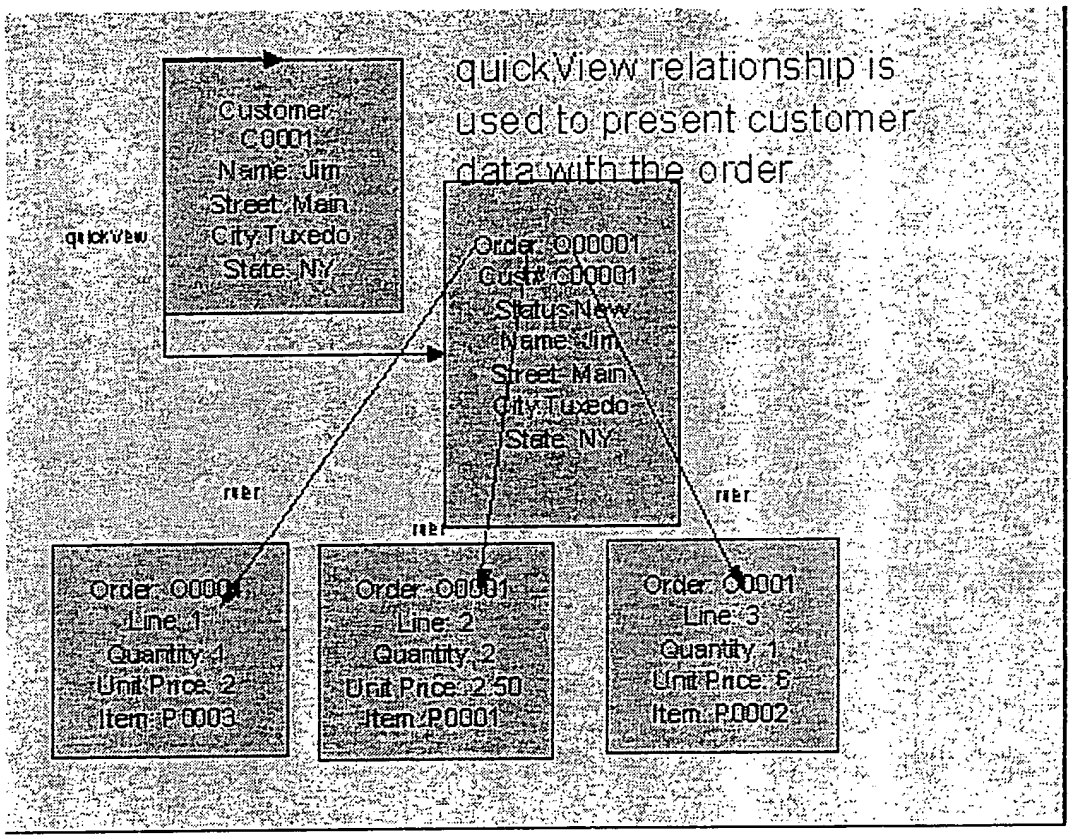
quickView relationship is used to present customer data with the order
Customer
C0001
Name: Jim
Street: Main
City: Tuxedo
State: NY
Order: 00001
Cust#: C0001
Status: New
Name: Jim
Street: Main
City: Tuxedo
State: NY
Order: 00001
Line: 1
Quantity: 1
Unit Price: 2
Item: P0003
Order: 00001
Line: 2
Quantity: 2
Unit Price: 2.50
Item: P0001
Order: 00001
Line: 3
Quantity: 1
Unit Price: 6
Item: P0002

FIG. 5

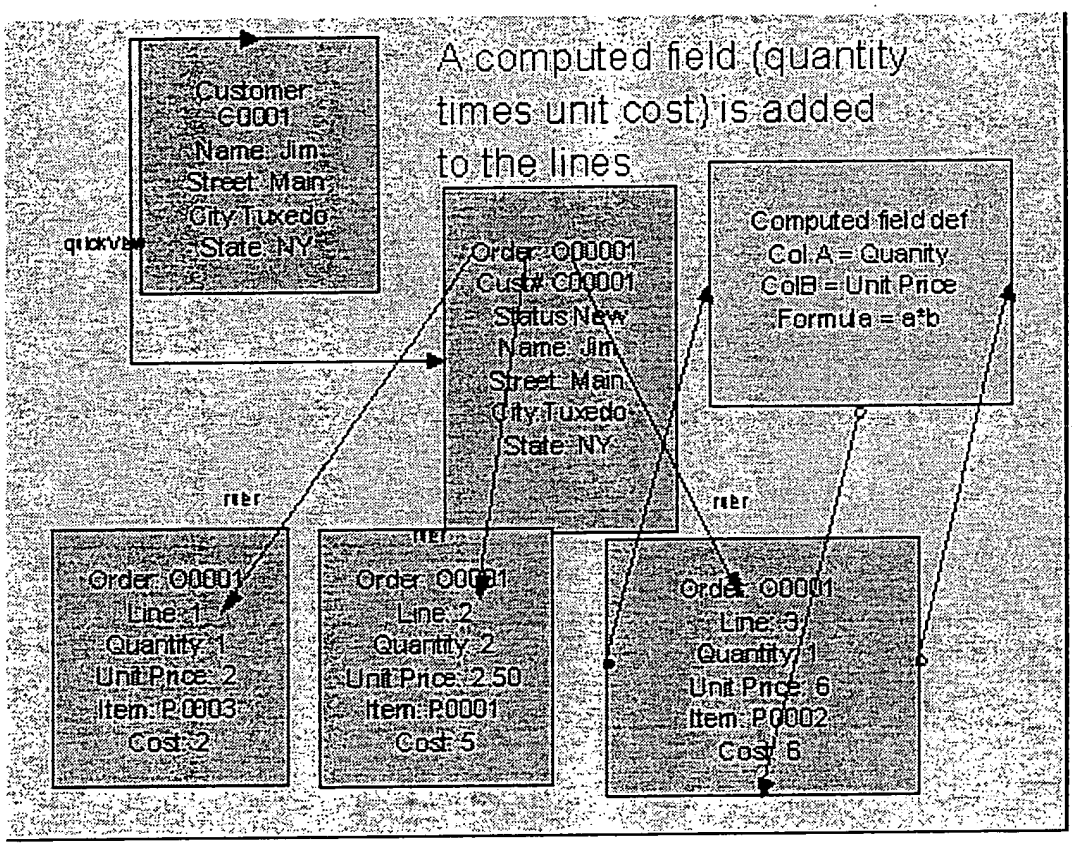
A computed field (quantity times unit cost) is added to the lines
Customer
C0001
Name: Jim
Street: Main
City:Tuxedo
State: NY
Order: O0001
Cust#: C0001
Status:New
Name: Jim
Street: Main
City:Tuxedo
State: NY
Computed field def
Col.A = Quanity
ColB = Unit Price
Formula = a*b
Order: O0001
Line: 1
Quantity: 1
Unit Price: 2
Item: P0003
Cost: 2
Order: O0001
Line: 2
Quantity: 2
Unit Price: 2.50
Item: P0001
Cost: 5
Order: O0001
Line: 3
Quantity: 1
Unit Price: 6
Item: P0002
Cost: 6

FIG. 6

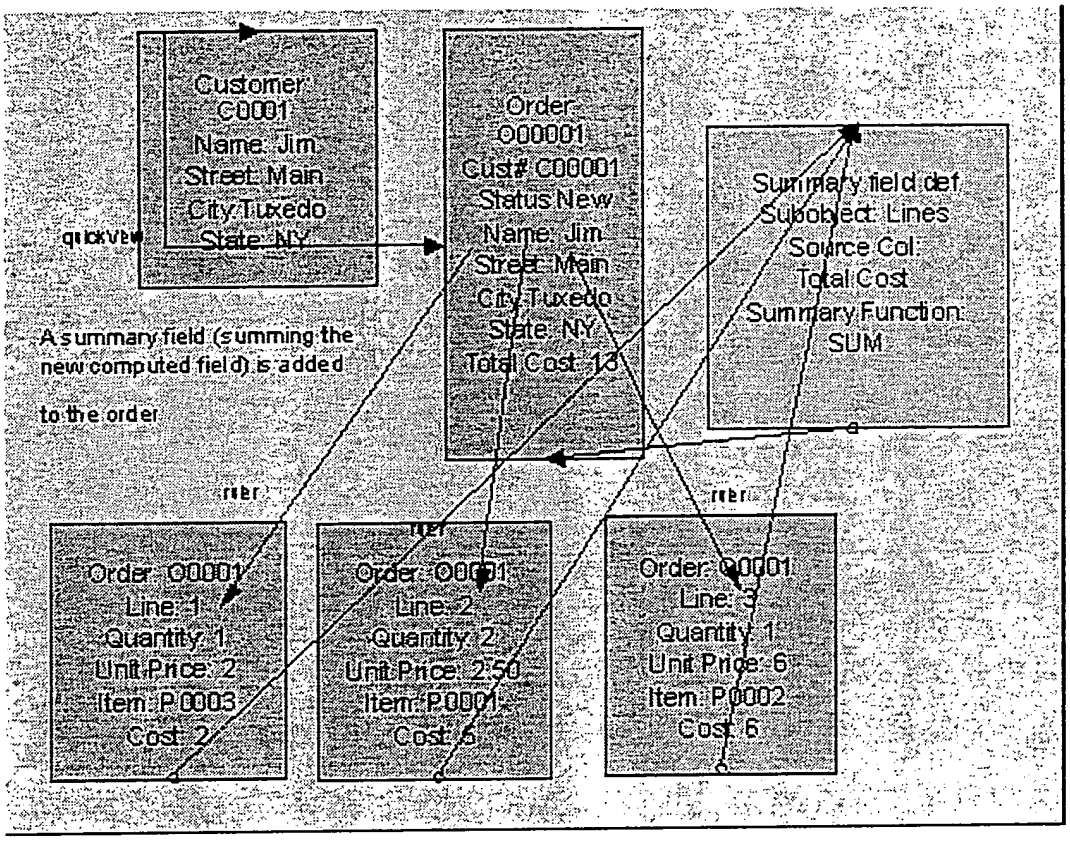
Customer
C0001
Name: Jim
Street: Main
City:Tuxedo
State: NY
quickview
Order
000001
Cust# C00001
Status New
Name: Jim
Street: Main
City:Tuxedo
State: NY
Total Cost: 13
Summary field def
Subobject: Lines
Source Col:
Total Cost
Summary Function:
SUM
A summary field (summing the new computed field) is added to the order
Order: 00001
Line: 1
Quantity: 1
Unit Price: 2
Item: P0003
Cost: 2
Order: 00001
Line: 2
Quantity: 2
Unit Price: 2.50
Item: P0001
Cost: 5
Order: 00001
Line: 3
Quantity: 1
Unit Price: 6
Item: P0002
Cost: 6

FIG. 7